

Stereochemistry of heterocycles - XVII. Configuration and conformation of some stereoisomeric 4,5-substituted 2,2-dimethyl-1,3-dioxanes

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Abstract

The configurations and preferred conformations in series of 4,5-dialkyl and 4,5,5-trialkylsubstituted 2,2-dimethyl-1,3-dioxanes were studied. It was proved by PMR spectroscopy that the low-boiling isomers have the cis configuration, while the high-boiling isomers have the trans configuration; moreover, all of the isomers are found in the preferred chair conformation. This conformation experiences a certain amount of distortion, the degree of which depends on the number and character of the substituents in the 5 position. © 1974 Plenum Publishing Corporation.

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